SAILOR® 6000 GMDSS CONSOLES

Maritime communication inspired by you

2013 Product Sheet

The most important thing we build is trust

Whether you are sailing on your local coast or cruising in the Polar Regions, SAILOR offers you the right GMDSS consoles required for your ship. With a wide range of flexible console systems we are able to deliver the optimal Global Maritime Distress Safety System for any sea area in the world.

The SAILOR of the World

SAILOR products have become almost synonymous with GMDSS. Thus, more than 1/3 of all commercial vessels covered by the international conventions have already chosen the high quality products and service that the SAILOR® brand provides.

SAILOR GMDSS products and consoles not only fulfill the IMO requirements, they are also a sound investment in the future. The SAILOR GMDSS consoles provide a large number of attractive conveniences and safety facilities – either as complete solutions or as stand-alone products.

A wide range

Requirements vary from vessel to vessel. Therefore the SAILOR GMDSS solutions are available in a configuration to match the actual communications and safety needs, regardless of the sea area you are operating in.

As a standard the SAILOR 6000 Consoles are delivered with light, dimming control, connection boards and SAILOR Moxa Switches for ThraneLINK.

The consoles are fitted with removable front plates, which greatly facilitate service and maintenance procedures, and the modular structure of the whole system means that it easily may be extended and altered.

The high quality and flexible SAILOR 6000 GMDSS Consoles are also available in versions which include the Thrane VoIP Handset for SAILOR FleetBroadband, making the console a complete communication system.

About ThraneLINK

ThraneLINK is a sophisticated communication protocol that connects the SAILOR products in a network, offering important new opportunities to vessels. It provides facility for remote diagnostics and enables access to all the SAILOR products from a single point for service. This results in optimized maintenance and lower cost of ownership because less time is needed for troubleshooting and service. Installation is made easier as ThraneLINK automatically identifies new products in the system. The uniform protocol is an open standard which provides a future proof solution for all vessels.

SAILOR® 6000 GMDSS CONSOLES

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Most popular SAILOR GMDSS Console solutions:

SAILOR A1 solutions
The SAILOR VHF DSC Programme fulfils the requirements for Sea Area 1. The SAILOR VHF DSC Programme offers SAILOR 6222 VHF DSC (Class A) and SAILOR 6215/6216 DSC (Class D). The SAILOR product family offers a complete range of safety products, should the local regulations require further installations.

Dimensions:
107 mm x 241 mm x 132 mm (H x W x D)

SAILOR A2 solutions
The SAILOR 6222 VHF DSC and the SAILOR 6300 MF/HF Control Unit can be installed together in this one section console with light and connection boards. This system satisfies all requirements for Sea Area A2.

Dimensions of the console:
405 mm x 445 mm x 375 mm (H x W x D)

SAILOR A3 solutions
The SAILOR Programme offers several solutions for Sea Area A3. These can be combined in different console solutions that meet the specific need. All these can be installed in consoles with light and connection boards.

A3 TLX/C: The three section solution with radiotelex and one Inmarsat-C. This solution will typically have one SAILOR 6222 VHF DSC, one SAILOR 6006 Message Terminal with keyboard and printer SAILOR H1252B for the SAILOR 6110 mini-C GMDSS, and one SAILOR 6006 Message Terminal with keyboard and printer SAILOR H1252B radiotelex and the SAILOR 6301 MF/HF Control Unit. The MF/HF can be supplied as 150W, 250W or 500W.

A3 C/C: The three section solution with two SAILOR 6110 mini-C GMDSS. This requires two SAILOR 6006 Message Terminals with keyboard and two SAILOR H1252B printers. The console also includes the SAILOR 6222 VHF DSC and the SAILOR 6301 MF/HF Control Unit. The MF/HF can be supplied as 150W, 250W or 500W.

Dimensions of the three section console with topmounted printers:
500 mm x 1245 mm x 375 mm (H x W x D)

A3 Consoles with Thrane VoIP Handset for SAILOR FleetBroadband: The A3 consoles can be supplied in a version where an extra section has been added to integrate the Thrane VoIP Handset into the console.

Dimensions of the four section console incl. VoIP Handset section with topmounted printers:
500 mm x 1645 mm x 375 mm (H x W x D)

SAILOR A4 solutions
The SAILOR Programme offers solutions and combinations for Sea Area A4. The solution is the four section console with three SAILOR 6006 Message Terminals. One for SAILOR 6110 mini-C GMDSS (for covering Sea Area 3), and two for the MF/HF radiotelex. The two MF/HF stations can be supplied as 150W, 250W or 500W.

Dimensions of the console with topmounted printer:
500 mm x 1645 mm x 375 mm (H x W x D)

Additional GMDSS equipment
In addition to the above mentioned consoles a range of SAILOR portable GMDSS VHF and Beacons are available to complete the GMDSS requirements.

For further information please contact:

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SAILOR® 6300 MF/HF

For when it really counts

2013 Product Sheet

The most important thing we build is trust

Based on the same foundation of high reliability, ease of use and leading-edge functionality that has positioned SAILOR as the leading product in maritime communications, the SAILOR 6300 MF/HF DSC Class A offers much more than just a way to meet mandatory GMDSS requirements. In addition to being part of the innovative SAILOR 6000 GMDSS series, it is an integral part of a vessels communication system and a crucial tool when in distress and rugged, reliable, easy to use communications are a must.

The SAILOR 6300 MF/HF provides several unique features such as message replay functionality – a first for MF/HF radios, and the ability to connect two control units. A highly efficient power amplifier with control hardware ensures high performance and reliable communication in the marine bands from 1.6 to 30 MHz in TX mode, and ensures constant and full output power on all ITU channels.

- SAILOR Replay – 240 seconds – First MF/HF to offer this feature
- High quality graphical display - perfect night and day vision
- 6W internal loudspeaker for excellent sound quality
- Improved, intuitive and easy to operate menu structure
- Unique, next generation radiotelex software
- Multiple control units
- 150W-250W-500W versions
- ThraneLINK

Instead of connecting the SAILOR 6300 MF/HF to an external GPS, the GPS input can be taken from the SAILOR 6110 mini-C GMDSS via ThraneLINK. Therefore, no additional cabling is needed.

More than GMDSS

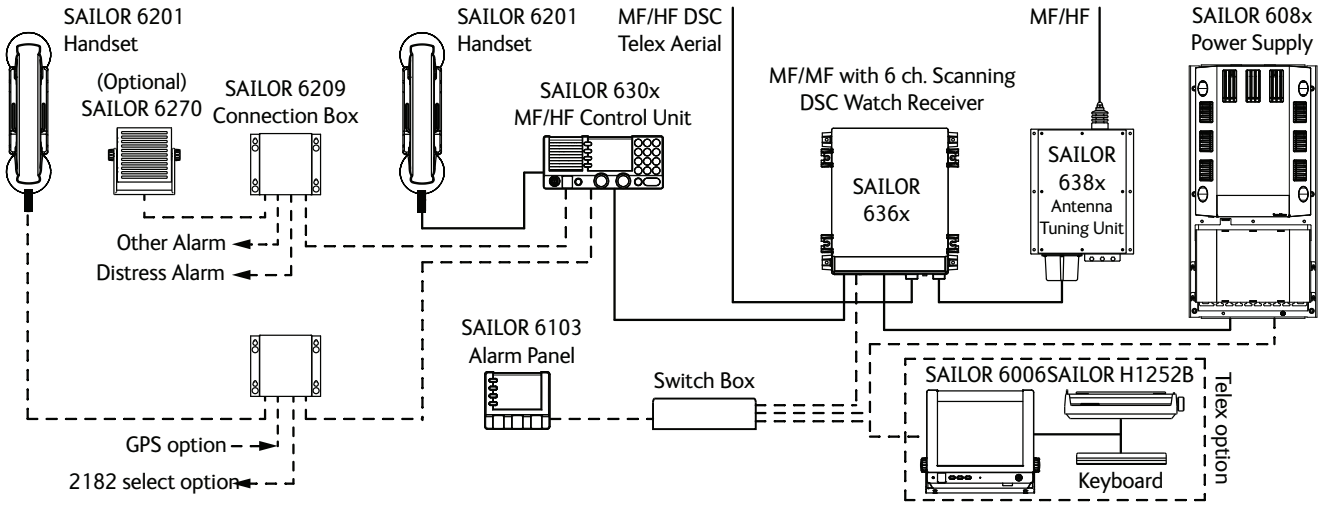
The new SAILOR 6300 MF/HF is a high-end communications system in its own right. It complies with the requirement for MF/HF DSC Class A, which is part of the mandatory requirements for SOLAS vessels in all sea areas, and many national GMDSS requirements. It is developed and designed to meet the needs of professional mariners ensuring clear and powerful communication for a wide variety of vessels including high seas fishing vessels, merchant/offshore ships and workboats.

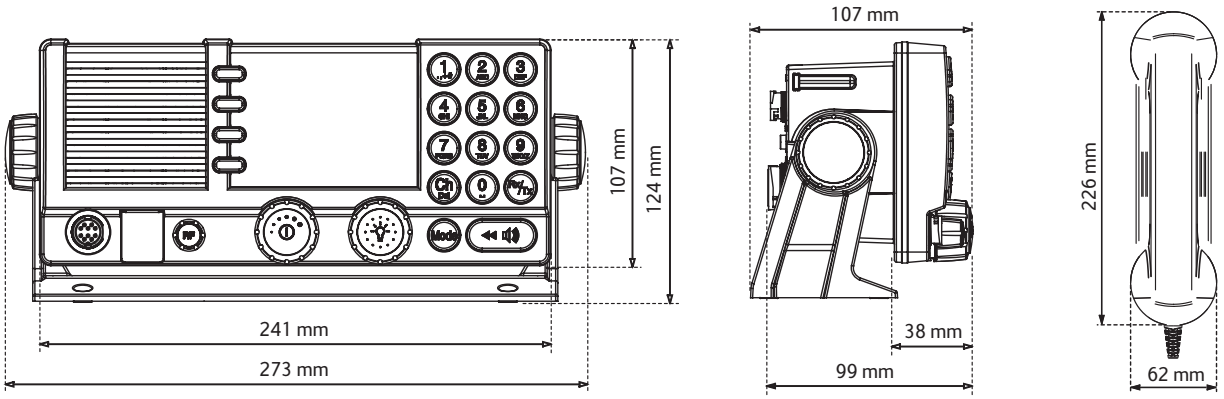
New Connections

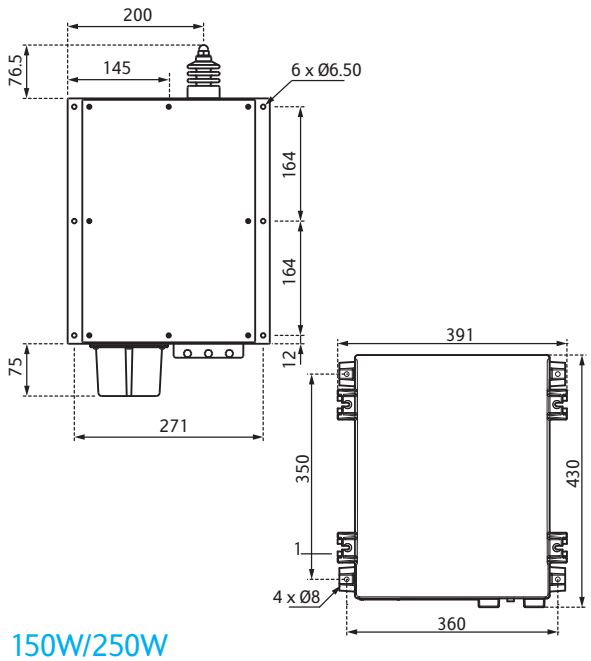
SAILOR 6300 MF/HF can be quickly and easily connected to other critical GMDSS systems such as the SAILOR 6103 Alarm Panel. SAILOR 6300 MF/HF features the new, user-friendly radiotelex software with a state-of-art user-interface that works in combination with the new SAILOR 6006 Message Terminal. External loudspeakers, keyboards and printers can also be added easily.

SAILOR® 6300 MF/HF

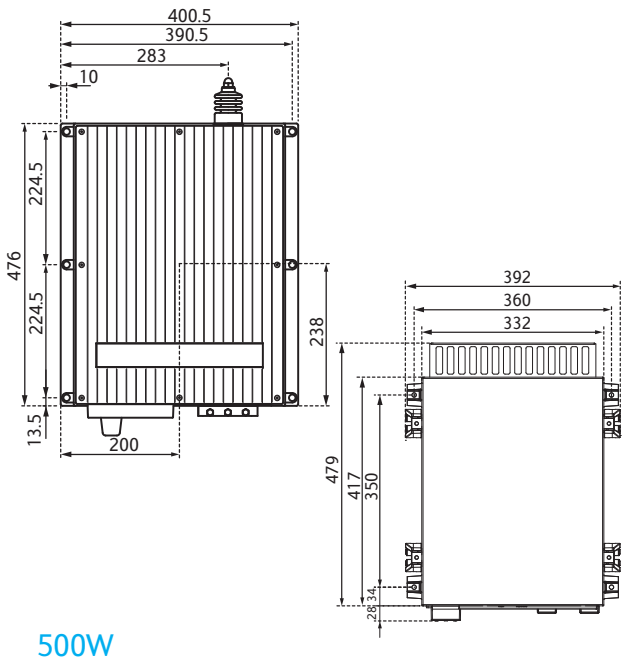
For when it really counts







150W/250W



500W

SAILOR® 6300 MF/HF

For when it really counts

COBHAM

SPECIFICATIONS

Operating Modes	Simplex and semi-duplex SSB telephony and DSC, TELEX AM broadcast reception
Operating temperature range	-15˚C to +55˚C
Supply voltage	Nominal 24V DC floating With optional external AC power supply: 115/230V AC 50/60 Hz. Automatic changeover to DC in the absence of AC supply
Power consumption	Rx, 60W (approx. at 24V DC)

	150W	250W	500W
Tx, SSB speech:	175W	300W	600W
Tx, SSB two-tone:	300W	550W	1100W
Tx, DSC/TELEX:	420W	600W	1000W

User-programmable channels	199 frequency pairs with mode (1-199)
User-programmable stations	40 stations with name, MMSI and station channel

RECEIVER

Frequency range	150 kHz to 30 MHz
Aerial impedance	50Ω automatically matched by the aerial tuning unit
Sensitivity	Aerial input for 10 dB SINAD, 50Ω aerial: SSB tel.: 0.7 µV AM tel.: 4 µV DSC/Telex: 0.7 µV Complies with ETSI 300-373 / 300 338.
Audio output power	6W with less than 10% distortion

TRANSMITTER

Output power	**150W** PEP +/-1.4 dB into 50Ω voice. Reduction to 80W when continuously keyed single tone, with duty cycle greater than 55% during 1 min. Automatic power recovery after 1 min.
	250W PEP +/-1.4 dB into 50Ω voice. Reduction to 100W when continuously keyed single tone, with duty cycle greater than 55% during 1 min. Automatic power recovery after 1 min.
	500W 1.6 to 3.999 MHz 400W PEP +0/-1,4 dB into 50Ω voice. 4.0 to 29.999 MHz 500W PEP +/- into 50Ω voice. 3 dB reduction when continuously keyed single tone, with duty cycle greater than 55% during 1 min. Automatic power recover after 1 min.
Power reduction	Low approx.: 10W
Frequency range	ITU marine bands from 1605 kHz to 30 MHz

DSC-TELEX MODEM

DSC Equipment class	Class A
Protocols	DSC: ITU-R M. 493-13, and M. 541-6 Telex: ITU-R M. 625-2 (incl. M. 476-4), M. 490, M. 491-1, and 492-5 NBDP telex in ARQ, FEC and SEL FEC modes
Ship's identity	DSC: 9-digit identity number Telex: 5- and/or 9-digit identity numbers
Interfaces	Alarm: DSC distress alarm interface NMEA: NMEA 0183 interface for GPS equipment Industrial ethernet Line, Key: Transceiver AF line input/output and external key interface. -10 to +10 dBm, 600Ω AUX alarm 2: Telex and non-distress/urgency DSC alarm output

DSC WATCH RECEIVER

Frequency range	Scanning: 2187.5 KHz, 4207.5 kHz, 6312.0 KHz, 8414.5 kHz, 12577.0 KHz, 16804.5 kHz
Aerial impedance	50Ω Complies with ETSI 300-373 or better.

ANTENNA TUNING UNIT

Frequency range	1.6 MHz - 27.5 MHz
Aerial requirements	8-18 m wire and/or whip aerial
Aerial tuning	Fully automatic with no presetting
Tuning speed	0.1 - 8 sec Typical
Power capability	150W/250W: 330W PEP in 50Ω 500W: 600W PEP in 50Ω

DIMENSIONS AND WEIGHT

		150W/250W	500W
Transceiver Unit	Width:	392 mm (15.4")	392 mm (15.4")
	Height:	445 mm (17.5")	507 mm (20")
	Depth:	127 mm (5")	217 mm (5")
	Weight:	19 Kg (41.9 lbs)	28 Kg (61.7")
Antenna Tuning Unit	Width:	290 mm (11.4")	401 mm (15.3")
	Height:	500 mm (19.7")	617 mm (24.3")
	Depth:	80 mm (3.1")	356 mm (14")
	Weight:	3.3 Kg (7.3 lbs)	17 mm (37.5")
Control Unit	Width:	240 mm (9.5")	240 mm (9.5")
	Height:	105 mm (4.1")	105mm (4.1")
	Depth:	100 mm (3.7")	100mm (3.7")
	Weight:	3.3 Kg (7.3 lbs)	3.3 Kg (7.3 lbs)

ThraneLINK

ThraneLINK is a sophisticated communication protocol that connects the SAILOR products in a network, offering important new opportunities to vessels. It provides facility for remote diagnostics and enables access to all the SAILOR products from a single point for service. This results in optimized maintenance and lower cost of ownership because less time is needed for trouble-shooting and service. Installation is made easier as ThraneLINK automatically identifies new products in the system. The uniform protocol is an open standard which provides a future proof solution for all vessels.

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COBHAM

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SAILOR® 6222 VHF DSC CLASS A

Improving everyday communications

2013 Product Sheet

The most important thing we build is trust

SAILOR 6222 VHF DSC continues the proud SAILOR tradition of setting new standards for GMDSS VHF design. It is a vital tool for daily operation and has been developed for the harsh maritime environment as part of the innovative SAILOR 6000 Series. It is based on the same foundation of high reliability, ease-of-use and leading-edge functionality that has positioned SAILOR as the top name in maritime VHFs.

SAILOR 6222 VHF provides flexibility through straightforward installation, either as part of a GMDSS console or on its own. As a result of improved, high performance and innovative, easy-to-use functionality the radio offers important operational enhancements. It introduces several new hardware and software improvements, including the improved SAILOR Replay functionality. The highly advanced 3.2" QVA display ensures the information can be read regardless of the light conditions on the bridge – day or night. The text can be displayed as white on black background, and as black on white background, to provide the optimal reading condition in daylight. Red backlight protects the night vision of the user.

- Unique SAILOR Replay (240 sec.) of incoming communication
- High quality display – perfect night and day vision
- Powerful 6W loudspeaker
- Intuitive and easy to operate menu structure
- Large tactile buttons and wheelknobs for easy operation
- The popular SAILOR handset
- ThraneLINK

The SAILOR 6222 VHF is the first ever DSC Class A to be rated waterproof to IPx6 and IPx8, making it possible to install on open workboats or outside deck areas.

More than GMDSS

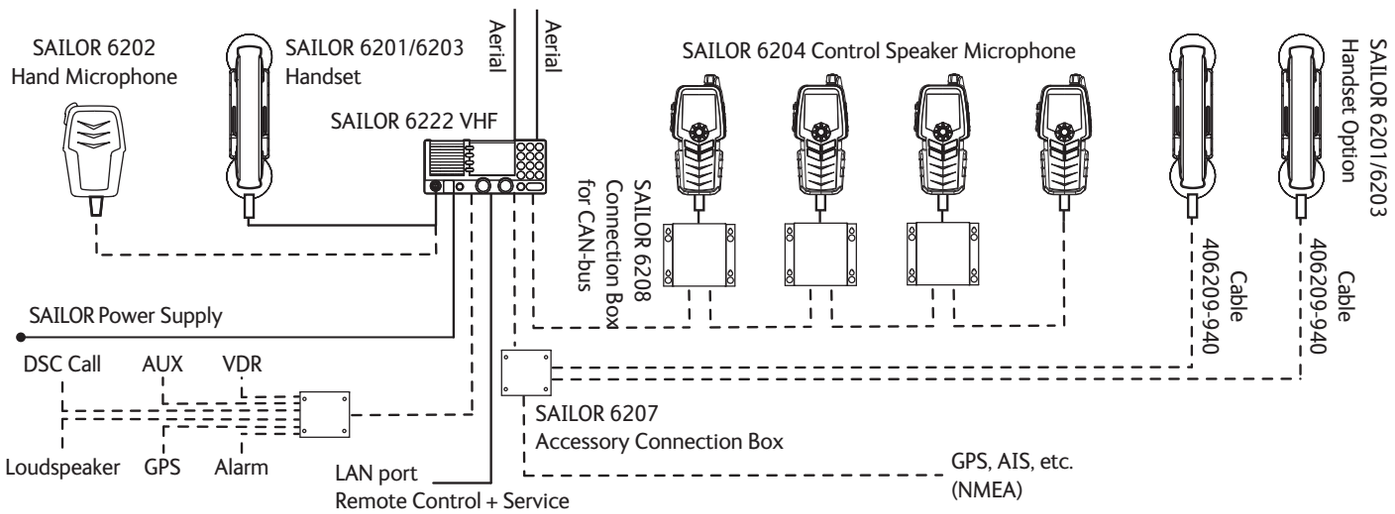
SAILOR 6222 VHF complies with DSC spec. 493-13 for VHF DSC Class A, which is part of the mandatory requirements for SOLAS vessels, and many national GMDSS requirements. In addition to its role as part of GMDSS it is one of the most advanced, high quality and powerful VHF radios available today. It is very well suited to a wide variety of maritime operational communications on board fishing vessels, merchant, offshore ships and workboats.

Flexible Solution

A broad portfolio of high quality accessories is available for the SAILOR 6222 VHF, which improve its installation flexibility and operational scope. Handset, hand microphones, SAILOR 6204 Control Speaker Microphone for bridge wing operation, as well as Alarm Panels and external loudspeakers, enable multiple users in different locations to utilize the high performance GMDSS Communication system.

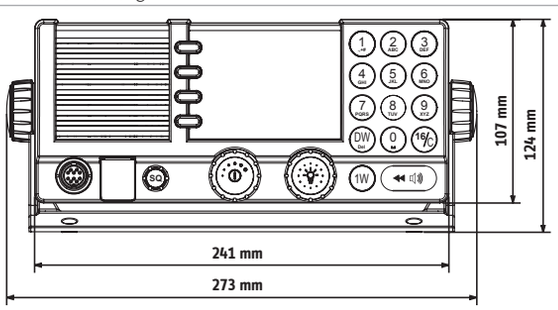
SAILOR® 6222 VHF DSC CLASS A

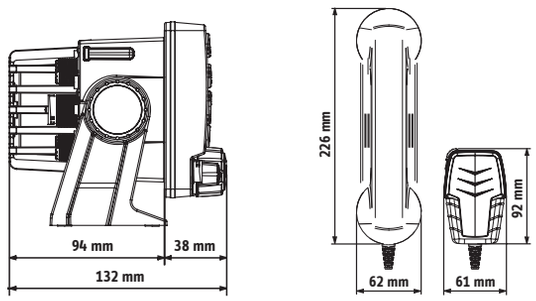
Improving everyday communications



TECHNICAL SPECIFICATIONS	
Power supply	12VDC Nominal (10.8– 15.6VDC). Reverse polarity protected
	SAILOR 6090 Power Converter (24-12V) incl.
Operational temperature range	-25°C to +55°C
Storage temperature range	-40°C to +80°C
Stand-by current consumption	< 500mA
Frequency range	TX 156,000-157,425, RX 156,000-163,425 MHz
Option: Extended frequency range in private channels	
Channel spacing	12.5kHz and 25kHz incl. all international maritime channels
Receiver sensitivity	< -119dBm Typically @ 20dB SINAD CCITT Weighted

INSTALLATION	
Bracket and flush mounting installation	X (included)
Water ingress	IPx8 and IPx6 all over
Note: In a flush mount installation a sealing gasket is provided. The SAILOR 6203 Handset or SAILOR 6202 Hand Microphone is required in waterproof installations.	
Weight SAILOR 6222 transceiver	< 1.50 kg (3.3 lbs)approx.
Weight SAILOR 6222 transceiver incl. Handset and mounting	< 2.50 kg (4.4 lbs) approx.





FEATURES	
SAILOR Replay	X
Display dimming	X
Red backlight	X
Large tacktile buttons and wheelknobs	X
Powerful loudspeaker	6W
Alert mute button	X
Dual- / Tri-watch and scanning	X
Transmit power	Hi / Lo: 25W and <1W
Built in DSC Class A (ITU493-13)	X

CHANNELS	
International channels	X
US channels (incl. WX)	X
Canadian channels	X
BI channels, incl ATIS and ATIS Killer	X
Private channels (P/F/L)	100

INTERFACES	
SAILOR 6204 control speaker microphones	4
SAILOR 6201/6202/6203 Handset/Hand Microphones	3
VDR	X
Printer interface	X
External loudspeaker	6W/8 Ohm

ThraneLINK

ThraneLINK is a sophisticated communication protocol that connects the SAILOR products in a network, offering important new opportunities to vessels. It provides facility for remote diagnostics and enables access to all the SAILOR products from a single point for service. This results in optimized maintenance and lower cost of ownership because less time is needed for troubleshooting and service. Installation is made easier as ThraneLINK automatically identifies new products in the system. The uniform protocol is an open standard which provides a future proof solution for all vessels.

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SAILOR® 6110 MINI-C GMDSS

Touch-screen security in an uncertain world

2013 Product Sheet

The most important thing we build is trust

The SAILOR 6110 mini-C is a true next generation GMDSS solution. Building on the strong foundation of previous SAILOR GMDSS products, it introduces innovative new features and functionality, including touch screen operation through the cutting-edge SAILOR 6006 Message Terminal and an all new approach to installation and networking.

The SAILOR 6110 mini-C is more than just a way to meet mandatory GMDSS requirements, because as part of the innovative SAILOR 6000 Series, it is an integral part of a vessel's communication system. The mini-C system features true triple functionality as it safely handles all GMDSS, SSAS and LRIT operation on board.

Highlights include:

- First ever approved touch screen terminal for GMDSS use
- External storage via SD card or USB disk
- Innovative approach to cabling for simple networking and expansion
- Accurate, reliable 50 channel GPS module that is also Galileo ready
- ThraneLINK

During the design process, many lessons learned from the SAILOR 3026 mini-C has been incorporated. As with the previous generation SSAS functionality is available as an option.

A World First

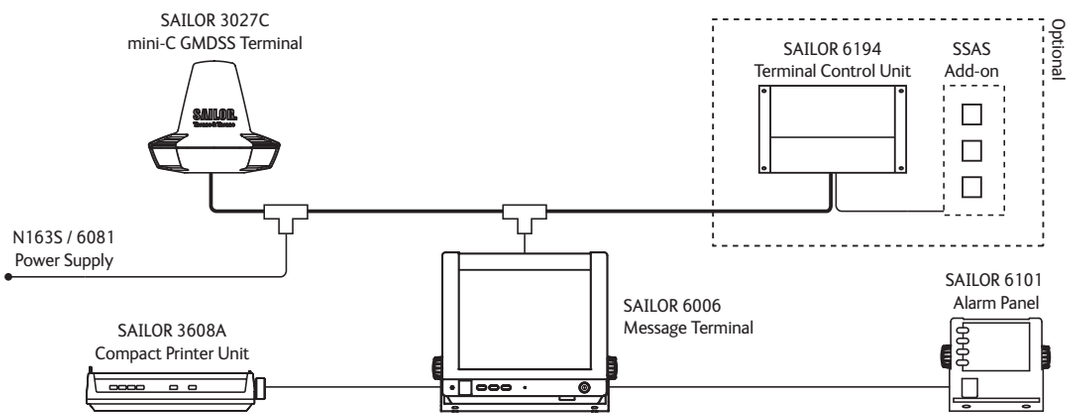
Operation of the SAILOR 6110 mini-C is performed via the SAILOR 6006 Message Terminal, which stands out as the world's first touch screen, Wheelmarked GMDSS terminal. It provides a user-friendly multimedia style interface, making accessing its' functionality straightforward, which in turn ensures the safe operation of the vessel's IMO safety and tracking systems.

Cabling Innovations

The unique use of CAN-BUS (NMEA 2000) style cabling for SAILOR 6110 mini-C is a major innovation. It reduces installation and maintenance time and costs by offering greater flexibility and making it easier to procure cables and tailor length and connectors, to optimise routing. Additionally, sub-systems, such as alarm panels are connected using RJ45 cables via a switch, making expanding the system easier and less costly.

SAILOR® 6110 MINI-C GMDSS

Touch-screen security in an uncertain world



SAILOR® 6110 mini-C GMDSS System

The system is comprised of the following items:

SAILOR® 3027C mini-C GMDSS Terminal
The next generation mini-C terminal in the long line of successful SAILOR mini-C products.

SAILOR® 6006 Message Terminal
The revolutionary touch-screen message terminal features a 10.4" high resolution screen that offers seamless interface to all functions via the icon based interface. There is both SD card and USB ports for external storage.

SAILOR® 6194 Terminal Control Unit (TCU) - optional
The TCU is used in conjunction with the SSAS option as a connection point, but its functionality can be expanded at a later stage. It meets maritime standards, with easy access and connection.

SAILOR® 6101 Alarm Panel
A newly designed alarm panel for the SAILOR 6000 Series with both visual and audio alarm functionality as well as EGC message status. All received Inmarsat-C alarms can be muted with a single push.

SAILOR® 6103 Alarm Panel
This alarm panel has the same basic features as the SAILOR 6101 Alarm Panel but furthermore adds VHF and MF/HF distress functionality. As on the SAILOR 6101 Alarm Panel it is possible to mute all alarms with a single push.

SAILOR® 6197 Ethernet Switch
With the use of Ethernet to interconnect many SAILOR products, the new Wheelmarked SAILOR 6197 Ethernet Switch has been added. SAILOR® 3608 Compact Printer Unit This unit is designed to be connected to SAILOR 6006 Message Terminal to ensure that EGC and Safety messages can be printed.

TERMINAL UNIT SPECIFICATIONS

General specifications	Inmarsat C GMDSS Type Approved
	Wheelmark Approved
	3027C mini-C Transceiver

ANTENNA UNIT SPECIFICATIONS

G/T	-23.7 dBk at 5° elevation
EIRP	Min. 7 dBW at 5° elevation
Antenna elevation	-15° to 90°
Operating frequencies	Rx Frequency Band: Rx: 1525 - 1545 MHz
	Tx Frequency Band: Tx: 1626.5 - 1646.5 MHz

GENERAL SPECIFICATIONS

Absolute power supply range	9 - 32 VDC
Nominal power input	15 VDC
Power consumption (typical)	Rx: 1.85 W @ 15 VDC
	Tx: 22 W @ 15 VDC
GPS module	50 channel (Galileo ready)
Transceiver interface	NMEA 2000 DeviceNet Mini-style, Male
I/O interface	CAN-BUS (NMEA 2000)
Dimensions	Diameter: 170.5 mm
	Height: 145 mm (without pole mount)
Weight	1.10 kg (without pole mount)

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SAILOR® SE-II AND SGE-II EPIRBS

Emergency Position Indicating Radio Beacon

2013 Product Sheet

The most important thing we build is trust

The SAILOR SE-II and SGE-II Satellite EPIRBs are satellite distress beacons designed to operate in conjunction with the Cospas-Sarsat international satellite search and rescue system.

For GMDSS compliance, the SAILOR 406MHz Satellite EPIRB has a slimline fully enclosed float free housing which allows self-testing of the EPIRB in question. The SAILOR EPIRB is also available with a quick release bulkhead mounting bracket for carry-off situations.

Features include:

- GMDSS compliant
- Global distress alerting
- Satellite location
- Small and lightweight
- Fully enclosed housing
- 5-year shelf life
- Built-in GPS (model SGE-II only)

When considering the SAILOR 406 MHz Satellite EPIRB for your vessel, you have the choice of two versions – the standard SE-II or the SGE-II. The SGE-II is distinguished by a built-in GPS and the ability to provide Search and Rescue (SAR) services with location details, including latitude and longitude. Both models rely on a cutting edge satellite system able to locate beacons transmitting on the 406MHz frequency to within 5km (3nm). Once SAR units are at the distress scene the beacon's 121.5MHz homing transmitter and it's high intensity xenon strobe light aid final location even in poor visibility.

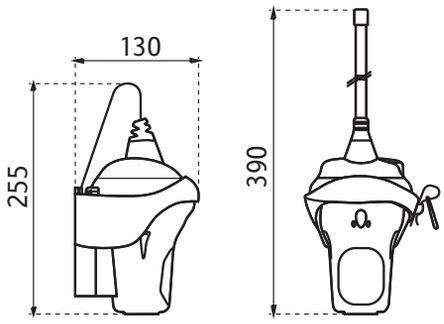
SAILOR 406MHz Satellite EPIRB is fully compatible with the Cospas-Sarsat and Global Maritime Distress and Safety System (GMDSS) regulations and meets the requirements A810 (19) of the International Maritime Organisation (IMO).

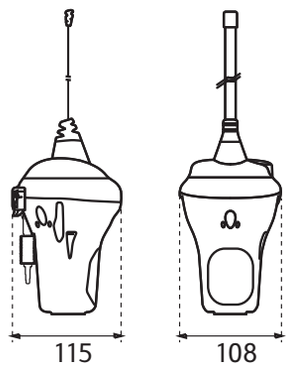
When shipped the beacon is programmed with a unique serial number which must be registered with the national authorities. Where national authorities allow, the beacon can be re-programmed with the vessels satellite or radio call sign. This is done by the distributor using an infra-red light pen connected to a Windows based computer. The SAILOR EPIRB is supplied with a fully enclosed automatic float free housing which allows it to be self-tested while in the housing. For non GMDSS use the unit can be supplied in a quick release bulkhead mounting bracket.

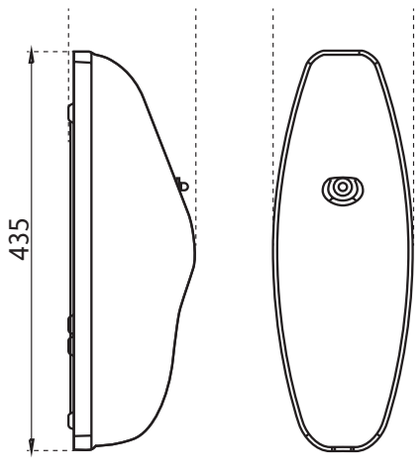
Once removed from its mounting bracket, activation happens automatically by immersion of the water or manually by a protected push button on the rear of the EPIRB. An additional self-test button runs a short diagnostic check and indicates that the EPIRB is ready for use. The specially designed bracket prevent unintentional activation in carry-off situations.

SAILOR® SE-II AND SGE-II EPIRBS

Emergency Position Indicating Radio Beacon







Float-free housing

GENERAL SPECIFICATIONS	
Message formats	Serialised, MMSI and radio call sign
Programming	Via RS232 light pen and Windows based PC
Temperature Operating	-20˚C to +55˚C (Class 2)
Temperature Storage	-30˚C to +70˚C
Battery life	5 years storage then 48 hours operation
Sealing depth	Waterproof to 10m
Weight	770g (1.7lb)

406MHz TRANSMITTER	
Frequency	406.025MHz +/-1kHz
Output power	5 Watts
Modulation	Typical phase

121.5MHz HOMING TRANSMITTER	
Frequency	121.5MHz +/- 3.5kHz
Output power	50mW ERP
Modulation	AM swept tone

VISUAL LOCATION	
Intensity	0.75Cd light output minimum
Flash rate	23 flashes per minute
Strope light type	Two high intensity LEDs

For further information please contact:

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SAILOR® SART II

9 GHz Search And Rescue Transponder

2013 Product Sheet

The most important thing we build is trust

All products from the SAILOR product programme are designed for the rough conditions at sea and the SAILOR SART II is no exception. The SAILOR SART II is small and easy to use, offering safety in critical situations.

The SAILOR SART II is a 9 GHz X-band Radar transceiver and has been designed for assisting rescue operations in accordance with IMO, GMDSS requirements.

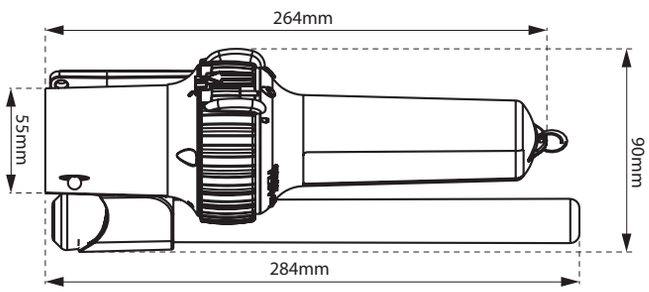
When a radar signal is received from a vessel or aircraft, the SAILOR SART II automatically transmits a response signal, which clearly identifies the survival craft on the radar screen by means of a stream of 12 in-line dots. Once activated, the SAILOR SART II will remain in standby mode for over 96 hours.

Features include:

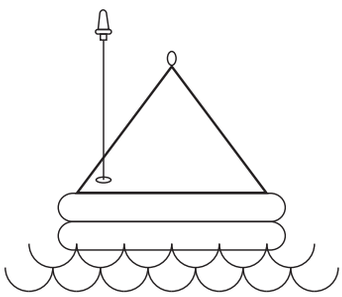
- Ship or survival craft options
- Waterproof to 10 m
- Maintenance free
- Replaceable, 5 year battery pack
- Audio/visual indication of operation
- Built-in test facility
- Integral lanyard
- Mounting options – internal/external

SAILOR® SART II

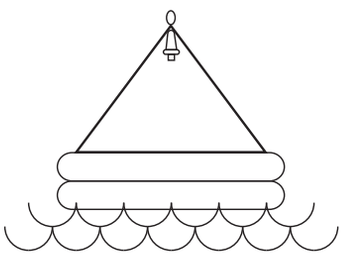
9 GHz Search And Rescue Transponder



External mounting



Internal mounting



GENERAL SPECIFICATIONS

Receiver Response	9.2-9.5GHz, sensitivity better than –50dBm
Transmitter Response	12 forward and return sweeps through the range 9.2-9.5GHz Nominal sweep times 7.5µs forward and 0.4µs return Minimum recovery time following excitation, less than 10µs Response reply to receiver signal less than 0.5µs
Radiated Power (ERP)	Not less than 400mW (+26dBm)
Duration of Operation	96 hours in standby condition followed by a minimum 8 hours of transmission while being continually interrogated with a pulse repetition frequency of 1kHz
Temperature Range	-20°C to +55°C operational -30°C to +65°C storage
Antenna Characteristics	Vertical beamwidth at least +/- 12.5 degree relative to the horizontal plane of the radar transponder. Azimuthal beamwidth omni-directional to +/- 2dB
Effective Antenna Height	1 meter or greater
Weight	530g (with mast and bracket)
Dimensions	264 mm long x 90 mm diameter Depth with bracket 101 mm

TRANSPORTATION

UN 3091 Class 9 hazard restrictions apply.

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2-Channel 3-Frequency NAVTEX Receiver

Model NT-2000

MAIN FEATURES:

Fully Compliant with IMO Resolution MSC.148(77)

The NT-2000 is designed to fully comply with the new NAVTEX standards specified in the IMO Resolution MSC. 148(77) which came into effect on July 1, 2005.

8-inch Color LCD Display

An 8-inch color TFT LCD replaces recording paper. Taking full advantage of a color display, the NT-2000 shows search and rescue (SAR) messages in red to clearly differentiate distress messages from navigational or meteorological warnings. Three colors are selectable for the screen background for ease-of-reading, easy-on-the-eye operation under all ambient lighting conditions.

Simultaneous Reception of 518 and 490 or 4209.5 kHz

Two independently operating receivers, one with a frequency converter, are built-in to simultaneously receive international (518 kHz) and either of 490 kHz or 4209.5 kHz domestic transmissions. If both international and domestic broadcasts occur at the same time, the NT-2000 displays international channel messages, while storing local channel messages in memory for reviewing at a later time. A single keypress switches the first and second channel text pages.

Large Character Size, 40 Characters/Line, 20 Lines/Screen

NAVTEX message screen consists of 18 lines and 40 characters/line plus two status and command lines for user-interface, displaying the text with a minimum of carriage returns and line feeds. Large 5-mm high fonts, 2 types selectable, are used for enhanced readability, enabling you to read text from several meters away.

Single-Keypress Protection of Stored Messages

Received messages are stored in non-volatile memory, and can be recalled onto the screen line by line or message by message using devoted scroll keys. Messages will be automatically erased from memory after the specified time period or after the full memory capacity is reached, but up to 50 important messages can be easily protected from automatic erasure with a devoted key.

Message Search Function

Stored messages are searchable by station ID and/or by message category, and can be output from a total of three external interface connectors for printing on line or for processing by shipboard or shore-based applications. Alarm outputs are also available from a devoted connector for triggering a remotely located alarm device.

Three-Frequency Single Whip Active Antenna

A 1.2-meter three-frequency active antenna is included as standard for space-limited installation. Specially designed front-end filtering allows the international channel and user-selected second channel transmissions to be received on the same antenna simultaneously without cross-channel interference and without sacrificing sensitivity or IMD performance.

Specifications

●**Frequencies:** 518 kHz (first receiver), 490 kHz & 4209.5 kHz (second receiver) ●**Input Impedance:** 50Ω (active antenna) and 10Ω+150pF (long wire) ●**Antenna:** 3-frequency active antenna, with 1.2m whip ●**Sensitivity (1% CER):** Better than 1μV/50Ω ant. input ●**RF Input Protection:** 30Vrms ●**Receiving Emission Mode:** F1B with FEC (ITU-R REC. 476-3, 540-1 and 625 B-mode) ●**Reception Mode:** Simultaneous reception of 518 kHz and user-selected 490 kHz or 4209.5 kHz. ●**Display Screen:** 8-inch color TFT LCD, daylight-viewing, backlit, with user-set screen sleep mode ●**Text Display:** 40 characters per line, 18 lines (message) + 2 lines (status indication & prompts) ●**Message Character Font Size:** Approx. 5 mm ●**Message Scrolling:** Line-by-line or message-by-message ●**Message Storage:** 200 messages (average 500 characters/message) for each of 518, 490 and 4209.5 kHz receivers ●**Message Protection:** Up to 50 user-selected messages for permanent storage. ●**Message Outputs:** All or selected displayed messages, all or selected stored messages ●**Message Search:** Stored message searchable by transmitter and/or message type ●**Alarms:** Audible and visual (message ID in red for message types A, B & L, and both message ID and text in red for message type D) ●**Alarm Output:** 2 pairs of relay contacts ●**I/O Interfaces:** RS-232C (printer), RS-422 (IBS/INS), NMEA-0182/IEC61162-1 ●**Power Requirements:** 24VDC (nominal), approx. 15W. ●**Cabinet Size & Weight:** 225/245(W) X 225/271(H) X135 (D) mm with/without mounting bracket. Approx. 3.3 kg with bracket. ●**Compass Safe Distances:** 80 cm (standard), 45 cm (steering) ●**Ambient Temperature:** -15 to 55˚C (cabinet, operating, 95% RH), -40 to 70˚C (antenna)

NOTE: Specifications, other than those specified under the relevant IMO recommendations and IEC specifications, are subject to change without notice or obligation.

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Printed in Japan 2005 Sep

THE SAILOR® SP3500 VHF PORTABLES

Tough Job. Tough Conditions. Tough Equipment.

2013 Product Sheet

The most important thing we build is trust

Fishermen and workboat crew face some of the toughest conditions in the world, making reliable communication vital to ensure the safety of everyone on board. The SAILOR SP3500 portable series is designed to make these jobs safer, by ensuring clear communication is possible from anywhere on board and in any conditions.

Out on deck, in high seas and driving rain, SAILOR SP3500 portables come into their own. Already designed to fit comfortably in your palm, they are also equipped with a ribbed grip that means, even with gloves on in wet conditions there is no chance you will drop it.

With large tactile buttons and control knobs combined with a user-friendly interface, operation of the SAILOR SP3500 portables could not be simpler, and when you are hauling in a valuable catch, complicated operation of your radio is the last thing you need. Every SAILOR SP3500 also comes with a large, easy to read display with a red backlight to protect your night vision.

Made for the purpose

The SAILOR SP3500 portable series features seven models covering all maritime applications, with three models specifically designed for fishing and workboat use:

- **SAILOR SP3510 Portable VHF**
- **SAILOR SP3515 Portable VHF with scrambler and CTCSS**
- **SAILOR SP3520 Portable VHF GMDSS**

All radios feature powerful transceivers and high quality audio ensuring that all parties can be heard loud and clear even when working in windy and noisy conditions. The SAILOR name gives you confidence that your portable VHF was built for the job at sea, with such features as:

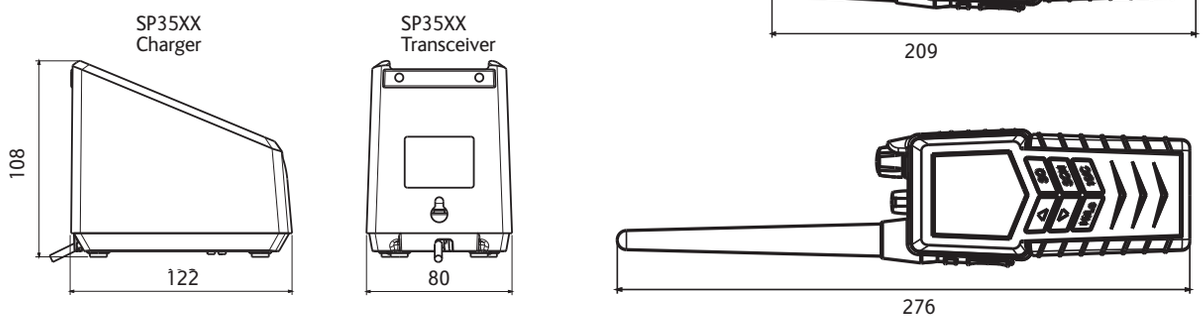
- Dual Watch, Tri Watch and Scanning
- Robust design
- Waterproof (IP67)
- Large display
- Clear sound
- Large tactile buttons
- Ribbed grip
- Interface to external accessories – e.g. SAILOR 3595 Hand Microphone

For users who require a private conversation over the radios, the SAILOR SP3515 Portable VHF also offers scrambling features. International, US, Canadian and Inland (BI) Waterways channel tables for the VHFs are selectable by the user. Naturally, as a standard, the SAILOR SP3520 Portable VHF GMDSS is supplied with the international channels that are required for a portable GMDSS VHF.

Years of experience with maritime design have resulted in the innovative, user-friendly design of the SAILOR SP3500 VHF portables, which is backed up by incredible value and a high quality worldwide service network – On Board Service Center.

THE SAILOR® SP3500 VHF PORTABLES

Tough Job. Tough Conditions. Tough Equipment.



The complete package

The SAILOR SP3510/SP3515/SP3520 VHF packages consist of:

- Transceiver and antenna
- Belt clip and lanyard
- Li-Ion rechargeable battery and charger*
- AC/DC converter/adaptor
- DC connection
- Operators manual

Wide range of accessories

In addition to the standard package a range of accessories are available, making the SAILOR SP3500 portable series even more vital for all marine applications:

- SAILOR 3590 Hand Microphone with Interface for OTTO Engineering accessories
- SAILOR 3595 Hand Microphone ATEX with interface for SAVOX and PELTOR accessories
- Interface cables for PELTOR and SAVOX accessories
- Service/programming cable
- Dual charger
- Leather carry and soft carry bags with shoulder strap

**The SAILOR SP3520 also includes a Lithium battery for GMDSS application.*

	SAILOR SP3510 VHF	**SAILOR SP3515 VHF Full function**	**SAILOR SP3520 VHF GMDSS**
Approvals	R&TTE FCC IC	R&TTE FCC IC	MED (Wheelmark) FCC IC
CHANNELS AND FREQUENCIES			
Frequency range	149.3 - 174 MHz	149.3 - 174 MHz	149.3 - 174 MHz
Channel Separation	25 kHz	25 and 12.5 kHz	25 kHz
Pre-programmed channels	Int., US, Canadian and BI	Int., US, Canadian and BI	GMDSS
Additonal programmable channels	100	100	100
ATIS call sign programmable	X	X	X
FEATURES			
Squelch control	X	X	X
Transmitter power (Hi/Lo) (radiated)	5/1W	5/1W	2/1W
Dual watch, Tri-watch, scanning	X	X	X
Call Channel Program and Selection	X	X	X
Red back light with dimming	X	X	X
Keypad lock	X	X	X
Keypad beep On/Off	X	X	X
Backlit keypad	X	X	X
Light on key press or manual only	X	X	X
Display contrast	X	X	X
CTCSS		X	
Scrambler		X	
Battery save function	X	X	X
Battery level indicator	X	X	X
BATTERY			
1800 mAh Rechargeable Li-Ion battery	X	X	X
GMDSS battery			X

For further information please contact:

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